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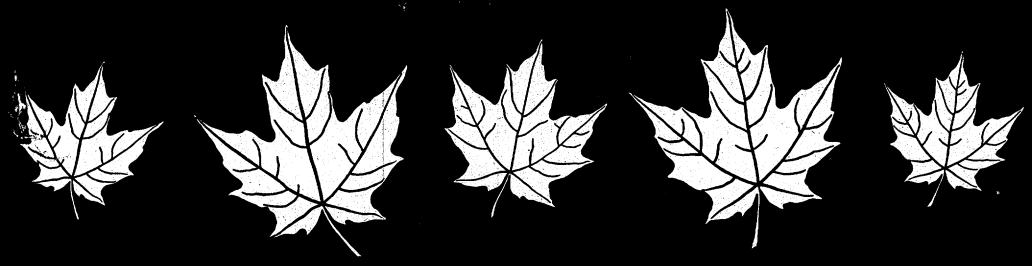

Judging Maple Products

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Each year in the north central and northeastern United States, numerous fairs and festivals are held to celebrate the production of maple sirup and its products. At each of these affairs there are exhibits and demonstrations to determine the best maple sirup and maple confections made that season. In the past, the standards by which the products have been evaluated were left to the discretion of the judges. It is natural that in local centers the criteria of quality of maple sirup—density, clarity, color, and flavor—have taken on different meanings and relative values. As transportation and communications bring these local centers closer together, leaders in the maple industry of one state are being asked to serve as product judges in neighboring states. Under these circumstances, the job of the visiting judge is not an easy one. For a fair and proper evaluation, a judge now must learn the local ideas of what characterizes a high quality maple product. In national shows of maple products, there is no uniform set of standards which are known to all entrants.

To equalize judging, each festival should have entry blanks that list the factors on which the products will be judged, and the relative value of each factor should be given. For this purpose the authors have brought together in this publication the descriptions, characteristics and standards which they feel represent a cross section of the maple industry. Also included are score sheets for the use of judges in maple competitions.

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of maple confections should be done in the best manner possible to protect the product from dirt and microbial contamination. Many states have food laws that set standards of sanitary practices, and maple producers should be encouraged to follow them.

A maple confection, like sirup, will have more sales appeal if it is offered in an attractive package. An attractive package does not need to be an expensive one. Neatness and originality will be scored higher than cost of package.

Flavor

As with sirup, the most important factor for judging maple confections is flavor. A true, distinctly maple flavor will receive top score. Any product with a foreign, off-flavor (buddy, moldy, or fermented), will be eliminated completely from the competition.

Appearance

Under this factor of quality are a number of characteristics that apply to only one or two of the various confections. The drying out of solid candies as evidenced by white surface areas is a defect that lowers the grade. The form of the individual piece of candy should be definite, smooth in texture, and complete (no broken corners). Opinions about the optimum color of a maple product vary with locality; both contestants and judges should know the local preference and rate the products accordingly. Mold, of course, denotes poor handling and old candy. The factor of separation applies specifically to maple cream, although it may be used to lower the score of hard candies that have crumbled. The *creep test* is a special test used to rate crumb sugar. It is an indication of the amount of moisture in the product, the more the creep the drier the product, an important quality factor. The presence of air bubbles in maple cream lowers its quality.

Texture

The texture of maple confections has been rated by evaluating the three characteristics, hardness, crystallinity, and surface. Hardness refers to the condition of the product (pieces of confection) as a whole. Maple candies are divided into two large classes, hard and soft sugars, according to their firmness. A candy in the soft sugar class should fracture easily, but a hard candy is broken only with difficulty. Crystallinity refers to the condition of the individual sugar crystals in a confection. High scores will be given to products of small crystalline structure. Coarse crystals are easily detected on fracture of the confection and by their sandy taste when eaten. A high quality confection should have a surface free of holes that may result from poor filling of the mold. This does not mean that the best surface should be absolutely smooth, because crystal-coated candies may have a rough, sandpaper finish.

entries. Unacceptable sirups are those having noticeably scorched, buddy, or other off-flavors.

Color

The color of maple sirup can be accurately rated, but there may be local differences in the relationship of color and high quality. This relationship should be determined before the competition and made known to contestants and judges. As various maple states do not have the same color designation for the different grades, the scoring scale in table 1 may not be directly applicable in all areas. However, the total points awarded for this charactertistic should be 20, as indicated.

Packaging

Marketing is becoming an important phase of maple sirup production. The successful producer is packaging his product attractively, and, according to law, maple sirup offered for sale must be in a clean, sanitary, properly labeled container. Points are awarded for sirup samples in neat, clean containers. They do not have to be expensive or elaborately decorated.

SCORING MAPLE SUGARS

There are so many different maple confections that it has been difficult to condense them all into a small number of similar classes that could be contained on a single, reasonably-sized score sheet.

Table 2, *Maple Sugar Score Sheet*, contains a class arrangement that includes all the more commonly made maple confections. A scoring scale is also given for each class. The four characteristics, appearance, texture, flavor, and packaging, are used to evaluate the products. The scoring scale indicates the particular attribute of each of the qualities that should be evaluated for a given sample. The sum of the scores for each characteristic gives an accurate appraisal of the entries in a maple products contest.

Packaging

Although packaging is the least important scoring factor, it does contain a disqualifying element: if a wrapping is missing, as in the case of a hard confection, the particular entry should be eliminated from the scoring. The packing

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MAPLE SIRUP
Score Sheet

Entry No._____ Class _____ Score_____

		Score	
		Partial	Total
DENSITY—Highest Score	(25) points		
68° – Brix	15	_____	
66.5° – 66.9°	20	_____	
66.5° – 66.9°	25	_____	
66.0° – 66.4°	20	_____	
65.5° – 65.9°	15	_____	
*Below standard density	0	_____	_____
CLARITY—Highest Score	(15) points		
Crystal clear	15	_____	
Sugar crystals (settled)	10	_____	
Cloudy	5	_____	
*Cloudy plus debris	0	_____	_____
FLAVOR—Highest Score	(30) points		
Best	30	_____	
2nd best	25	_____	
3rd best	20	_____	
4th best	15	_____	
5th best	10	_____	
*Unacceptable	0	_____	_____
COLOR—Highest Score	(20) points		
US VT N.Y.			
AA – Fancy Fancy Fancy	16-20	_____	
A A 1	11-15	_____	
B B 2	6-10	_____	
Unclassified C 3	1-5	_____	_____
PACKAGE—Highest Score (attractiveness – protection)	(10) points		
Best	10	_____	
Poor	5	_____	
Very poor	0	_____	_____

GRAND TOTAL (score)_____

*Disqualify entry

MAPLE SUGAR
Score Sheet

Entry No._____ Class _____ Score_____

	Hard Sugar	Soft Sugar Solid	Soft Sugar Semi-solid	Crumb Sugar	Score Partial	Score Total
APPEARANCE—Highest Score	(25)	(25)	(25)	(25)		
No white areas (dried)	5	5	—	—	_____	
Form good	5	10	—	—	_____	
Color	5	5	10	—	_____	
No mold	5	5	—	—	_____	
No separation	5	—	10	—	_____	
*Creep test	—	—	—	25	_____	
Air bubbles	—	—	5	—	_____	_____
TEXTURE—Highest Score	(30)	(30)	(30)	(30)		
Hardness	10	10	15	—	_____	
Crystallinity	10	10	15	30	_____	
Surface (smooth)	10	10	—	—	_____	_____
FLAVOR—Highest Score	(35)	(35)	(35)	(35)		
Best	35	35	35	35	_____	
2nd best	30	30	30	30	_____	
3rd best	20	20	20	20	_____	
4th best	10	10	10	10	_____	
**Unacceptable	0	0	0	0	_____	_____
PACKAGE—Highest Score	(10)	(10)	(10)	(10)		
Attractiveness	5	5	5	5	_____	
Sanitation	5	5	5	5	_____	
**No wrapping	0	0	0	0	_____	_____
					GRAND TOTAL (score)	_____

*Creep (dryness) test—Movement of sugar when poured in cone-shaped pile.
**Disqualify entry

CLASS
I. Hard sugar, A. Larger than 1 pound, B. smaller than 1 pound.
II. Soft Sugar, solid
A. Large crystal. 1. Large pieces, 2. small pieces.
B. Smooth grain. 1. Large pieces, 2. small pieces, 3. filled, 4. fondant.
III. Soft Sugar. A. Semi-solid—Tub, B. cream (maple butter).

SCORING MAPLE SIRUP

The five points used for judging the quality of a maple sirup are given in the *Maple Sirup Score Sheet*, table 1. The relative value of each point is also shown along with a scoring scale and space for recording the numerical score given to a sample for each characteristic. The full evaluation for each sirup can be given a numerical value by totaling the five sub-scores.

Density

Density is the most important tangible quality of maple sirup. Maple sirup must contain at lease 65.5 percent sugar to meet minimum state and federal standards, and any sirup below this density is automatically disqualified. The viscosity of maple sirup changes greatly in the range of 65.5 percent sugar solids. Actually, the sirup has a better flavor it it contains more than 65.5 percent sugar because of its greatly increased viscosity. However, sirup with a Brix above 67° (sugar percentage) is supersaturated with sugar and will tend to crystallize in storage, producing an unattractive product and reducing sales. The ideal sirup should have a sugar content of 66.5 to 67.0 percent (Brix), and the highest score for density should be given to sirups in this range.

The sugar content should be carefully determined with a precision Brix hydrometer or hand refractometer. Special attention must be given to making the proper temperature correction, for the graduated scoring scale can be of value only if accurate density measurements are made.

Sirups found to be below standard density (65.5° Brix) should be disqualified from the competition. Because it may reduce the number of samples to be scored in the other categories, density has been placed first on the score sheet.

Clarity

Clarity is another factor of quality that is included in the standards for maple sirup. All sirups should meet the minimum requirements and should be disqualified if they do not.

Sirups having debris, such as small pieces of bark or dirt, (have not been filtered) should be disqualified. Sirups with small amounts of sugar sand in suspension will be cloudy and indicate inadequate filtering; settled sugar crystals indicate that the sirup was too dense to remain in solution. Clear sirups indicate proper filtering procedures.

Flavor

Flavor is the most important characteristic to be evaluated and the least standardized because it can be evaluated only subjectively. Both judges and contestants should have a common understanding of what constitutes good maple flavor and the score can show only differences between the best and poorest flavored